**UNICEF-Turkey**
**TERMS of REFERENCE (ToR)**
**SHORT TERM NATIONAL INSTITUTIONAL/INDIVIDUAL CONSULTANCY**

| Design Skills Labs Material and Content Development | (Ref: EDU/TURA/2019-H) |
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**Links with the Country Programme Priorities**

**UNDCS – Pillar 1**: Sustainable, Inclusive Growth and Development
**UNDCS – Pillar 3**: Gender Equality and Empowerment of Women and Girls

**Country Programme Outcome 1 - Equity increased through social inclusion and resilience building**

By 2020, the education, child and social protection and health systems, NGOs, communities and families provide vulnerable children with increasingly inclusive opportunities to realize their rights to protection, education, development and participation.

**Country Programme Outcome 3 - Gender equality among children enhanced and sustained into adolescence**

By 2020, the education and CP systems, NGOs and communities increasingly provide vulnerable girls and boys with gender-sensitive opportunities to realize their rights.

**Output 3A**: **Education Opportunities for Adolescent Girls and Boys**: By 2020, the education system, NGOs and families have increased capacity to provide and facilitate gender-sensitive and inclusive formal, non-formal, and informal education opportunities for adolescent girls and boys.

**Activity 1: Inclusive, Adolescent-Friendly, Quality Learning Environments and Services**:
The formal education learning environment for adolescents is strengthened through the identification of barriers, monitoring of enrolment, attendance and completion, and responses are developed and implemented to ensure that all girls and boys, especially the most vulnerable children including those under temporary protection, acquire the knowledge and skills needed to be equal and active members of society.

## I.    BACKGROUND

Turkey has a well-established, centralized education system. Enrolment rates and pupil-teacher ratios have improved significantly over the years. In 2018, 17,885,248 students were enrolled in formal pre-primary, primary and secondary education, mainly in public schools (including "open education" distance learning programmes). According to the Ministry of National Education (MoNE) Formal Education Statistics (FES), there are 1,030,130 teachers, including 991,433 permanent staff[1]. However, in Turkey, 28.7% of young people between 15–29 years of age are not in education, employment or training[2]. According to the World Economic Forum, 41% of the skills required for professionals in 2020 in Turkey will be different from the ones required in 2015. It is predicted that existing professional jobs will gradually diminish, and new areas of employment will emerge with the Fourth Industrial Revolution[3]. At the same time, experts who are able to effectively combine field specialties and digital skills with STEM skills (Science, Technology, Engineering,

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[1] Ministry of National Education, Formal Education Statistics, 2017-2018.
http://sgb.meb.gov.tr/meb_iys_dosyalar/2018_09/06123056_meb_istatistikleri_orgun_egitim_2017_2018.pdf

[2] OECD Report, 2015

[3] The Fourth Industrial Revolution represents a fundamental change in the way we live, work and relate to one another. It is a new chapter in human development, enabled by extraordinary advances in technology commensurate with those of the first, second and third industrial revolutions, World Economic Forum, 2019.

and Mathematics) will be high in demand[4]. Accordingly, the Future of Jobs[5] Report of the World Economic Forum estimates that once they graduate, 65% of the children starting school today will be working in jobs that do not exist today. Thus, the education children currently receive in Turkey does not completely align with contemporary realities and labor market requirements. Learners are facing barriers to post-schooling employment opportunities. Likewise, employers are often unable to find suitable candidates for open positions. For this reason, many adolescents with university degrees end up in jobs below their qualification level. Given this context, formal education systems need to adapt to the changing reality and equip all children and adolescents, including the most vulnerable and marginalized, with relevant skills for learning, personal empowerment, employability and active participation in society[6]. It is important to note that Turkey hosts the largest number of refugees in the world (close to 4 million, of which 3.6 million are Syrian) and an estimated 50% of these refugees are 10–24 years old. While progress has been made on access to formal education for younger refugee children, refugee adolescents face significant challenges in school enrolment, retention and with access to employment opportunities.

As part of its new strategic vision (Education Vision 2023)[7], the Ministry of National Education (MoNE) has started to establish "Design and Skills Labs" (DSLs) in schools, which emphasize designing, doing and producing rather than simply acquiring knowledge. The DSLs aim to provide learning environments where relevant 21st century skills like problem-solving, critical thinking, productivity, teamwork, multiple-literacy and social-emotional skills are developed. In addition to equipping adolescents with skills of the new era, the DSLs will also play a very significant role in lowering the number of students with non-attendance issues and those with early school leaving problems by providing conducive learning environments.

With the aim of helping adolescents to improve their skills, acquire practical knowledge, attend school, and stay in school, UNICEF is cooperating with the Ministry of National Education (MoNE) Secondary Education Directorate General (SEDG). This cooperation will support efforts to equip targeted young people with useful skills (e.g. block-coding, app development, machine learning and Artificial Intelligence), introducing them to a range of new and relevant knowledge and skills that will enhance their understanding and appreciation of new on-demand skills in higher education and in the job market, as well as improve their overall employability. Essential transferrable skills (communication, collaboration, empathy, self-realization, and self-actualization, etc.) will be integrated into the learning process. Together, these skills will provide learners with better, more relevant opportunities in a modern, fast-paced, and ever-changing world. Finally, DSLs will also contribute to the development of adolescents and youth to engage in conflict resolution, enhance social cohesion and ensure that the skills they learn will improve their participation in social and economic life.

## II.     PURPOSE

The purpose of this assignment is to provide technical support to the UNICEF Turkey Country Office in its strategic partnership with MoNE to plan, implement and monitor the activities of the Design and Skills Labs programme, and participate in relevant technical and coordination meetings with key partners (MoNE central and local level officials, teachers, etc.).

## III.     SCOPE OF WORK, DELIVERABLES AND TENTATIVE WORK CALENDAR

The team of national consultants/consultancy company is expected to complete the following tasks and submit the relevant deliverables in line with the agreed work calendar (see Table 1).

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[4] World Economic Forum, 2017

[5] http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf

6 World Economic Forum (2015) "New Vision for Education: Unlocking the Potential of Technology" World Economic Forum, Geneva.

7 The Education Vision 2013 document can be found here: http://2023vizyonu.meb.gov.tr/doc/2023_VIZYON_ENG.pdf It aims to guide a holistic education reform process that responds to the changes Turkey and the world are currently experiencing. A key goal is to bring the Turkish education system in line with international standards.

**Task 1: Provide technical support to the development of a skills-based curriculum and materials for the "*Design Skills Labs Program*":**

1. Review and prepare a report on relevant national and international models, practices, materials and content related to the integration of 21st-century skills in production-oriented lab settings in lower/upper secondary education;
2. Pay a total of 12 site visits and conduct interviews with students, teachers, school principals of pilot schools to carry out the utilization of the Design Skills Labs in pilot schools; evaluate the pilot implementation process; analyse the level of readiness of students in terms of anticipated skills (e.g. problem-solving, critical thinking, productivity, teamwork, multiple-literacy, social-emotional skills, communication, collaboration, empathy, self-realization, self-actualization, etc.) through relevant data collection tools to be developed in consultation with MoNE and UNICEF; and prepare a report;
3. Develop a "Teachers Manual" with concrete lesson plans, online materials and suggestions on how to efficiently use DSLs in upper secondary schools; the Teachers Manual will include a minimum of 40 sample interdisciplinary interactive activities (on Science, Technology, Engineering and Mathematics (STEM), Software/Coding, Electric and Electronics, 3D Design, Robotics, Social Sciences, Traditional Handicrafts[Calligraphy, Ornamentation, Marbling], Wood Works, Music, Painting, Video, Cinema and Photography) to be used by teachers;
4. Participate in meetings and workshops with MoNE representatives, school principals and teachers, make a presentation about the work done and finalize the Activity Booklet based on the feedback provided by MoNE and UNICEF.

**Task 2: Conduct training and capacity development activities:**

1. Prepare the content of teacher training modules including in the following areas: (STEM, Software/Coding, Electric and Electronics, 3D Design, Robotics, Social Sciences, Traditional Handicrafts[Calligraphy, Ornamentation, Marbling], Wood Works, Music, Painting, Video, Cinema and Photography);
2. Prepare a Training of Trainers (ToT) programme to deliver the modules mentioned above;
3. Conduct and supervise cascading ToTs for MoNE teachers and officials, including the supervision of MoNE master trainers; the consultants will be responsible for the coordination, supervision and monitoring of the programme and are expected to support the delivery of the training programme, by presenting relevant sessions. In these training programmes (for relevant MoNE teachers and officials), the consultants will also be specially responsible for:
   - Supporting trainers by ensuring coordination (assignment of tasks to trainers, coordinating target groups, helping with logistics)
   - Supervising trainers and supporting them with implementation
   - Monitoring implementation (in terms of quantity and quality of the training programme),
   - Working in close collaboration with UNICEF and MoNE.
4. Prepare and analyse training evaluation tools, including pre- and post-training tests and their analyses. Within the framework of the above-mentioned training programmes, the consultants will be responsible for:
   - Conducting quantitative and qualitative analyses of the assessment tools
   - Preparing pre- and post-training tests and evaluation forms completed by participants with the purpose of evaluating the quality and efficacy of the training programme

**Task 3: Support the implementation of the programme:**

1. Hold regular consultation meetings with partners (MoNE central and provincial level) and UNICEF to document programme needs and lessons learnt and prepare regular monitoring reports.

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**Task 4: Provide technical support to strategy development:**

1. Support the development of national and provincial strategies and action plans for nationwide dissemination of DSLs.

**TABLE 1. TENTATIVE WORKLOAD FOR DELIVERABLES**

| # | TASKS | DELIVERABLES | WORK LOAD |
|---|-------|--------------|-----------|
| | **Task 1: Provide technical support to the development of a skills-based curriculum and materials for the "*Design Skills Labs Program*"** | | |
| 1. | Review and prepare a report on relevant national and international models, practices, materials and content related to the integration of 21$^{st}$-century skills in production-oriented lab settings in upper secondary education | Report | 4 person/days |
| 2. | Pay a total of 12 site visits and conduct interviews with students, teachers, school principals of pilot schools to carry out the utilization of the Design Skills Labs in pilot schools; evaluate the pilot implementation process; analyse the level of readiness of students in terms of anticipated skills (e.g. problem-solving, critical thinking, productivity, teamwork, multiple-literacy, social-emotional skills, communication, collaboration, empathy, self-realization, self-actualization, etc.) through relevant data collection tools to be developed in consultation with MoNE and UNICEF; and prepare a report | Data collection tools; Work schedule; Report | 24 person/days |
| 3. | Develop a "Teachers Manual" with concrete lesson plans, online materials and suggestions on how to efficiently use DSLs in upper secondary schools; the Teachers Manual will include a minimum of 40 sample interdisciplinary interactive activities (on Science, Technology, Engineering and Mathematics (STEM), Software/Coding, Electric and Electronics, 3D Design, Robotics, Social Sciences, Traditional Handicrafts［Calligraphy, Ornamentation, Marbling］, Wood Works, Music, Painting, Video, Cinema and Photography) to be used by teachers | Teachers Manual | 40 person/days |
| 4. | Participate in meetings and workshops with MoNE representatives, school principals and teachers, make a presentation about the work done and finalize the Activity Booklet based on the feedback provided by MoNE and UNICEF | Presentation; Meeting report | 10 person/days |
| | **Task 2: Conduct training and capacity development activities** | | |
| 5. | Prepare the content of teacher training modules including in the following areas: (STEM, Software/Coding, Electric and Electronics, 3D Design, Robotics, Social Sciences, Traditional Handicrafts［Calligraphy, Ornamentation, Marbling］, Wood Works, Music, Painting, Video, Cinema and Photography) | Training content; Measurement tools; Report | 30 person/days |
| 6. | Prepare a Training of Trainers (ToT) programme to deliver the modules mentioned above | ToT Modules | 10 person/days |
| 7. | Conduct and supervise cascading ToTs for MoNE teachers and officials, including the supervision of MoNE master trainers; the consultants will be responsible for the coordination, supervision and monitoring of the programme and are expected to support the delivery of the training programme, by presenting relevant sessions. In these training programmes (for relevant MoNE teachers and officials), the consultants will | Training reports | 100 person/days |

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|---|---|---|---|
| | also be specifically responsible for:<br>- Supporting trainers by ensuring coordination (assignment of tasks to trainers, coordinating target groups, helping with logistics)<br>- Supervising trainers and supporting them with implementation<br>- Monitoring implementation (in terms of quantity and quality of the training programme),<br>- Working in close collaboration with UNICEF and MoNE | | |
| **8.** | Prepare and analyse training evaluation tools, including pre- and post-training tests and their analyses. Within the framework of the above-mentioned training programmes, the consultants will be responsible for:<br>- Conducting quantitative and qualitative analyses of the assessment tools<br>- Preparing pre- and post-training tests and evaluation forms completed by participants with the purpose of evaluating the quality and efficacy of the training programme | Training evaluation reports | 4 person/days |
| | **Task 3: Support the implementation of the programme** | | |
| **9.** | Hold regular consultation meetings with partners (MoNE central and provincial level) and UNICEF to document programme needs and lessons learnt and prepare regular monitoring reports | Consultation meeting report, including recommendations | 4 person/days |
| | **Task 4: Provide technical support to strategy development** | | |
| **10.** | Support the development of national and provincial strategies and action plans for nationwide dissemination of DSLs | National and provincial level strategy and action plans | 4 person/days |
| **TOTAL WORK LOAD** | | | **230 person/days** |

**Proposed Task Distribution**

| Task | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total Person/days |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Expert1 | X | X | | X | | X | X | X | X | X | |
| Expert2 | | X | X | X | X | X | X | X | X | X | |
| Expert3 | | X | X | X | X | X | X | X | X | X | |
| Expert4 | | X | X | X | X | X | X | X | X | X | |
| Expert5 | | X | X | X | X | X | X | X | X | X | |
| Expert6 | | X | X | X | X | X | X | X | X | X | |
| Expert7 | | X | X | X | X | X | X | X | X | X | |
| Expert8 | | X | X | X | X | X | X | X | X | X | |
| Expert9 | | X | | X | | X | X | X | X | X | |

\* see below the titles and required qualifications for the experts.

Expert 1: Team Leader / Coordinator
Expert 2: Science and Technology Expert (in information and communication technology (ICT))
Expert 3: Science and Technology Expert (in physics)
Expert 4: Science and Technology Expert (in mathematics)
Expert 5: Science and Technology Expert (in chemistry or biology)
Expert 6: Fine Arts Expert (in music)
Expert 7: Fine Arts Expert (in visual arts)
Expert 8: Fine Arts Expert (in wood work)
Expert 9: Monitoring and Evaluation Expert

## IV.       DUTY STATION

Home-based with frequent visits to selected provinces[8].

## V.       SUPERVISOR

Education Specialist, UNICEF Turkey Country Office

## VI.       REMARKS AND RESERVATIONS

UNICEF reserves the right to terminate the contract and/or withhold all or a portion of payment if the rules and the regulations regarding confidentiality, ethics and procedures of UNICEF and the partners are not followed, the performance is unsatisfactory, or work/deliverables are incomplete, not delivered or fail to meet the deadlines. Bidders must respect the confidentiality of the information handled during the assignment. Documents and information provided must be used only for the tasks related to these terms of reference. The deliverables will remain the copyright of UNICEF. Members of the team shall not use the data for their own research purposes, nor license the data to others, without the written consent of UNICEF.

## VII.       DURATION, COST, PAYMENT AND APPLICATION PROCESS

**Duration:** The assignment will cover 230 person/days **(from December 2019 to November 2020)** and payments will be made upon the delivery of outputs. In case of any unexpected delay(s) in the estimated time frame (approval process, force majeure, etc.), the duration of the assignment might be extended subject to the same conditions and mutual will of the parties.

**Estimated Cost of Consultancy:** All bidders/ applicants shall present a detailed financial proposal that elaborates on daily costs on the basis of the above-mentioned schedule and deliverables, including a total sum demanded. All costs, including travel, accommodation, administrative costs, etc. shall be covered by the contractor and should be included in the financial proposal as a separate heading and broken down into details of accommodation and travel costs.

**Payment:** UNICEF will issue a contract in TL. Payments will take place in TL upon submission of the deliverables, as indicated in the matrix included in the section Work Plan of the Evaluation.

Bidders are required to specify their daily rates and the total amount as per the number of anticipated working days for each deliverable in the financial proposal, and provide the breakdown of the lump sum amount as well as incidentals of each deliverable in TL. It is up to bidders to determine how the number of person/working days is distributed within the team.

Application process:
All bidders are expected to submit to UNICEF the following documents:
1. Financial proposal as per the attached template
2. CVs/P11 forms of all team members
3. List of programmes conducted/led by the team leader and the education experts
4. Technical proposal. The minimum content for the technical proposal is:
    - Main objectives
    - Methodology, explaining how the process will be conducted
    - Tentative schedule
    - Risks and mitigating measures (with risks related to ethical issued clearly spelled out)

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8 The name of the provinces to be visited will be decided at the beginning of the contract together with MoNE and the Consultants. 12 cities will be selected among Adana, Amasya, Ankara, Antalya, Aydın, Bartın, Batman, Erzurum, Gaziantep, Hatay, İstanbul, Kahramanmaraş, Karabük, Kars, Kastamonu, Kayseri, Kırşehir, Kilis, Malatya, Mardin, Samsun, Sivas, Şanlıurfa, Trabzon, Uşak. These are the cities where DSLs are established.

**Technical** and **financial** proposals should be submitted, in **separate files as per the requirements stated in the RFP document.** After the technical evaluation, the financial proposals of qualified companies/ individuals will be opened and evaluated. The technical evaluation will be completed based on the below criteria. UNICEF may hold a pre-bid meeting. Interested bidders are advised to check the UNICEF website regularly for updates on the tender process.

**Technical Evaluation Criteria**

| Item | Technical Evaluation Criteria | Max. Points Obtainable |
|---|---|---|
| 1. | **Expertise of the organization/team of consultants** | 10 |
| 1.1. | **Credential of the organization in terms of reliability, experience and capacity** | 10 |
| 1.1.1 | Profile of the institution/team of individuals in relation to staffing and personnel management/ supervisory & effective system in place including adequate logistical capacity to monitor enumerators in the field. | 5 |
| 1.1.2 | A brief introduction and overview of the assignment showing knowledge and understanding of the programme. | 5 |
| 2. | **Adequacy of the proposed work plan & approach** | 35 |
| 2.1. | Approach | 25 |
| 2.1.1. | Scope of proposed methodology including working tools /models/ techniques/ approaches/ principles | 10 |
| 2.1.2. | Proposed quality control mechanism for oversight and supervision. | 10 |
| 2.1.3. | Risk management & flexibility of proposal in context of possible needs to make changes regarding time, duration, location and kind of activities. | 5 |
| 2.2. | Planning & Schedule: | 10 |
| 2.2.1. | Service Efficiency/ appropriateness of the implementation team: Proposed adequate and right staff combination in relation to the respective expected outputs of the assignment. | 5 |
| 2.2.2. | Quality of proposed supervision and implementation plan with time table and key possible indicators i.e. how the agency will undertake each task listed in the TOR for timely completion of the assignment with quality output and client's satisfaction. | 5 |
| 3. | **Expertise of the organization** | 25 |
| 3.1. | Evidence/experience working in Turkey on areas related to the scope of the programme. | 10 |
| 3.2. | Demonstrable experience in in curriculum and material development, preferably developing innovative curricula and materials. | 10 |
| 3.3. | Demonstrable experience and competency in working with large stakeholder group (UN, government departments, etc.) in relation to similar scope and complexity of this assignment. | 5 |
| | **TOTAL TECHNICAL SCORES** | 70 |

*"An offer is considered technically acceptable (and therefore eligible for opening of financial offers), when it obtains 70 Points out of 100 during the course of the technical evaluation. The final selection of the contractor will be based on a combination of the technical and financial proposals with a weighting of 70% for the technical proposal and 30% for the financial proposal. In the case of cumulative analysis, the proposals scoring below 70% of the available technical points will be considered non-compliant and will be rejected and not further considered (e.g. in the case of 70:30, the passing score is 49 points out of 70)."*

## VIII.    PROFESSIONAL QUALIFICATIONS

A set of particular knowledge, skills, and expertise is needed to complete the assignment. The number of professionals and the desired qualifications needed from the experts/researchers to complete this

assignment are as follows:

1. **Team Leader/Coordinator**
   - Advanced university degree in education and/or engineering. Having an advanced degree in the field(s) of curriculum development and/or teaching methods and techniques is considered an asset.
   - At least 5 years of expertise in curriculum and material development, preferably developing innovative curricula and materials.
   - At least 5 years relevant experience in education, school practices, integration of technology in education, interdisciplinary teaching and learning, teacher capacity building and experience in conducting interviews with education professionals.
   - A full understanding of the Turkish National Education system and its regulations.
   - Ability to produce high-quality outputs in Turkish and in English.

2. **Science and Technology Expert (in information and communication technology (ICT))**
   - University degree in information and communication technology (ICT); possessing a Master's degree in the field(s) of curriculum development and/or teaching methods and techniques is an asset.
   - At least 3 years of experience in curriculum and material development preferably developing innovative curricula and materials, integration of technology, interdisciplinary teaching and learning in upper secondary education is considered an asset.
   - At least 2 years of experience using digital tools for the development of student creativity is considered an asset.
   - At least 2 years relevant experience in teacher capacity building is considered an asset.

3. **Science and Technology Expert (in physics)**
   - University degree in physics. Possessing a Master's degree in the field(s) of curriculum development and/or teaching methods and techniques is an asset.
   - At least 3 years of experience in curriculum and material development preferably developing innovative curricula and materials, integration of technology, interdisciplinary teaching and learning in upper secondary education is considered an asset.
   - At least 2 years relevant experience in teacher capacity building is considered an asset.

4. **Science and Technology Expert (in mathematics)**
   - University degree in mathematics. Possessing a Master's degree in the field(s) of curriculum development and/or teaching methods and techniques is an asset.
   - At least 3 years of experience in curriculum and material development preferably developing innovative curricula and materials, integration of technology, interdisciplinary teaching and learning in upper secondary education is considered an asset.
   - At least 2 years relevant experience in teacher capacity building is considered an asset.

5. **Science and Technology Expert (in chemistry or biology)**
   - University degree in chemistry or biology. Possessing a Master's degree in the field(s) of curriculum development and/or teaching methods and techniques is an asset.
   - At least 3 years of experience in curriculum and material development preferably developing innovative curricula and materials, technology integration, interdisciplinary teaching and learning in upper secondary education is considered an asset.
   - At least 2 years relevant experience in teacher capacity building is considered an asset.

6. **Fine Arts Expert (in music)***
   - University degree in music.
   - At least 3 years of experience in curriculum and material development in fine arts education is considered an asset.
   - At least 2 years relevant work experience in teacher capacity building is considered an asset.

7. **Fine Arts Expert (in visual arts)***
   - University degree in visual arts.

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- At least 3 years of expertise in curriculum and material development in fine arts education is considered an asset.
- At least 2 years relevant work experience in teacher capacity building is considered an asset.

8. **Fine Arts Expert (in wood work)***
   - University degree in wood work.
   - At least 3 years of experience in curriculum and material development in fine arts education is considered an asset.
   - At least 2 years relevant work experience in teacher capacity building is considered an asset.

*It is essential that one of the Fine Arts experts should have at least 1 year of experience in video production, short movie production, art and photography.

9. **Monitoring and Evaluation Expert**
   - University degree in Education, Statistics, Sociology or a relevant field.
   - Knowledge of and experience in developing monitoring and evaluation tools.
   - At least 2 years of experience in the development and evaluation of curricular resources, preferably innovative curricula and materials for upper secondary education is an asset.
   - Excellent reporting skills.

*A workload distribution schedule that outlines the roles and responsibilities of each team member as related to the tasks and outputs should be submitted with the technical proposal.*

**Person/day cost distribution table for each member, in line with the proposed work load distribution (Table 2), should be submitted with the financial proposal.*